Title (en)

ENDOSCOPE INSERTION DIRECTION DETECTING DEVICE AND ENDOSCOPE INSERTION DIRECTION DETECTING METHOD

Title (de)

VORRICHTUNG ZUM NACHWEIS DER EINFÜHRRICHTUNG EINES ENDOSKOPS UND VERFAHREN ZUM NACHWEIS DER EINFÜHRRICHTUNG EINES ENDOSKOPS

Title (fr)

DISPOSITIF ET PROCÉDÉ DE DÉTECTION DE SENS D'INTRODUCTION D'ENDOSCOPE

Publication

EP 2008571 A1 20081231 (EN)

Application

EP 07714980 A 20070227

Priority

• JP 2007053587 W 20070227
• JP 2006113794 A 20060417

Abstract (en)

Scene feature values are computed from a scene of an R image of an endoscope image. Determination analysis is performed using a statistical or nonstatistical discriminator, with the scene feature values used as feature value vectors. The scene feature values are classified into a plurality of feature value classes (e.g., a class of lumen dark sections and a class of folds) closely relating to an endoscope insertion direction. An essential feature value class is computed, an insertion direction corresponding to a feature value in the essential feature value class is computed, and a high-accuracy insertion direction marker and the like are displayed. With the above-described operations, an endoscope insertion direction detecting device and an endoscope insertion direction detecting method capable of detecting an insertion direction with high accuracy even in the case of a scene in which a plurality of feature values are present are realized.

IPC 8 full level

A61B 1/00 (2006.01); **A61B 1/04** (2006.01); **G06K 9/52** (2006.01); **G06T 1/00** (2006.01); **G06T 7/00** (2006.01); **G06T 7/60** (2006.01); **G06V 10/52** (2022.01)

CPC (source: EP US)

A61B 1/00147 (2013.01 - EP US); **A61B 1/04** (2013.01 - EP US); **G06T 7/73** (2016.12 - EP US); **G06V 10/52** (2022.01 - EP US); G06T 2207/10068 (2013.01 - EP US); G06T 2207/30004 (2013.01 - EP US); G06V 2201/03 (2022.01 - EP US)

Cited by

CN102123651A; EP2301411A4; US8167791B2; US8665326B2; US8212862B2; US8419630B2; US8167792B2

Designated contracting state (EPC)

DE FR GB

Designated extension state (EPC)

AL BA HR MK RS

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EP 2008571 A1 20081231; **EP 2008571 A4 20130403**; **EP 2008571 B1 20150128**; CN 101420897 A 20090429; CN 101420897 B 20110413; JP 2007282857 A 20071101; JP 5094036 B2 20121212; US 2009041320 A1 20090212; US 8285016 B2 20121009; WO 2007119296 A1 20071025

DOCDB simple family (application)

EP 07714980 A 20070227; CN 200780013635 A 20070227; JP 2006113794 A 20060417; JP 2007053587 W 20070227; US 25370708 A 20081017